



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0781; Product Identifier 2018-CE-045-AD; Amendment 39-21369; AD 2020-26-14]

RIN 2120-AA64

Airworthiness Directives; Mitsubishi Heavy Industries, Ltd. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 75-16-20, which applied to all Mitsubishi Heavy Industries, Ltd., Model MU-2B, MU-2B-10, MU-2B-15, MU-2B-20, MU-2B-25, MU-2B-26, MU-2B-30, MU-2B-35, and MU-2B-36 airplanes. AD 75-16-20 required repetitive inspections of the propeller pitch control (PPC) lever for security and proper rigging. This AD requires modification and repetitive inspections of the PPC lever linkage. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For Mitsubishi service information identified in this final rule, contact Mitsubishi Heavy Industries America, Inc., c/o Turbine Aircraft Services, Inc., 4550 Jimmy Doolittle Drive, Addison, Texas 75001; phone: (972) 248-3108, ext. 209; fax: (972) 248-3321; website: <https://mu-2aircraft.com>. For Honeywell service information identified in this final AD, contact Honeywell International Inc., 111 S 34th Street, Phoenix, Arizona 85034-2802; phone: 855-808-6500; email: AeroTechSupport@honeywell.com; website: <https://aerospace.honeywell.com/en/services/maintenance-and-monitoring>. You may

view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148. It is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0781.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0781; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: John Turner, Aviation Safety Engineer, Fort Worth ACO Branch, FAA, 10101 Hillwood Parkway, Fort Worth, Texas 76177; phone: (817) 222-4508; fax: (817) 222-5245; email: johh.r.turner@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 75-16-20, Amendment 39-2294 (40 FR 31751, July 29, 1975) (AD 75-16-20). AD 75-16-20 applied to all Mitsubishi Heavy Industries, Ltd. (Mitsubishi) Models MU-2B, MU-2B-10, MU-2B-15, MU-2B-20, MU-2B-25, MU-2B-26, MU-2B-30, MU-2B-35, and MU-2B-36 airplanes. The NPRM published in the *Federal Register* on August 25, 2020 (85 FR 52281). The NPRM was prompted by reports of the PPC lever linkages disconnecting at the engine and Mitsubishi developing a secondary retention feature to secure the PPC. The NPRM was also prompted by Mitsubishi type certifying additional airplanes that are subject to the unsafe condition. In the NPRM, the FAA proposed to require installation of the secondary retention feature, repetitive inspections of the PPC lever linkage, and reporting inspection results to the FAA.

Comments

The FAA received no comments on the NPRM or on the determination of the costs.

Conclusion

The FAA reviewed the relevant data and determined that air safety requires adoption of the AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. Except for minor editorial changes, this AD is adopted as proposed in the NPRM.

Related Service Information under 1 CFR Part 51

Mitsubishi has issued MU-2 Service Recommendation No. 049/76-002, dated June 29, 2018, and MU-2 Service Recommendation No. 080, dated June 29, 2018. This service information specifies procedures for installing a PPC lever secondary retention feature to secure the PPC lever. These documents are distinct since they apply to different airplane models and configurations.

Mitsubishi has also issued MU-2 Service Bulletin No. 106/76-004, dated February 24, 2016, and MU-2 Service Bulletin No. 244, dated December 25, 2015. This service information specifies procedures for replacing the PPC lever clamping bolt. These documents are distinct since they apply to different airplane models and configurations.

Honeywell International Inc. has issued Service Bulletin TPE331-72-2190, Revision 0, dated December 21, 2011. The procedures in this service information include instructions for incorporating a threaded hole in the splined end of the shouldered shaft of the PPC assembly and re-identifying the shouldered shaft part number. The threaded hole is used to accommodate a secondary retention method to secure the PPC lever.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

Costs of Compliance

The FAA estimates that this AD affects 260 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD. The average labor rate is \$85 per work hour.

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Modification	2 work-hours X \$85 per hour = \$170	\$2	\$172	\$44,720
Repetitive inspections	1 work-hour X \$85 per hour = \$85 per inspection cycle	\$0	\$85 per inspection cycle	\$22,100 per inspection cycle

The FAA estimates the following costs to do any necessary on-condition actions for the incorporation of the threaded hole and reporting requirement. The FAA has no way of determining the number of aircraft that might need these on-condition actions:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Incorporation of threaded hole	4 work-hours X \$85 per hour = \$340	\$1,000	\$1,340
Reporting	1 work-hour X \$85 per hour = \$85	\$0	\$85

If the PPC lever detaches, the necessary corrective actions could vary significantly from airplane to airplane. The FAA has received no definitive data that would enable estimating the cost to install the PPC lever on each airplane or the number of airplanes that may require this action.

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act

unless that collection of information displays a currently valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA has determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive 75-16-20, Amendment 39-2294 (40 FR 31751, July 29, 1975); and

b. Adding the following new airworthiness directive:

2020-26-14 Mitsubishi Heavy Industries, Ltd.: Amendment 39-21369; Docket No. FAA-2020-0781; Product Identifier 2018-CE-045-AD.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 75-16-20, Amendment 39-2294 (40 FR 31751, July 29, 1975) (AD 75-16-20).

(c) Applicability

This AD applies to all Mitsubishi Heavy Industries, Ltd. (Mitsubishi) Models MU-2B, MU-2B-10, MU-2B-15, MU-2B-20, MU-2B-25, MU-2B-26, MU-2B-26A, MU-2B-30, MU-2B-35, MU-2B-36, MU-2B-36A, MU-2B-40, and MU-2B-60 airplanes,

certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 61: Propellers.

(e) Reason

This AD was prompted by propeller pitch control (PPC) lever linkages disconnecting at the engine. The FAA is issuing this AD to address the PPC lever linkage from disconnecting at the engine, which could lead to the inability to control the propeller pitch with the power lever in the cockpit and consequent loss of control of the engine power settings.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Modification

(1) For all airplanes except Model MU-2B and MU-2B-10 airplanes: Within 100 hours time-in-service (TIS) after the effective date of this AD or within 12 months after the effective date of this AD, whichever occurs first, modify the PPC lever linkage as specified in paragraphs (g)(1)(i) through (iii) of this AD, as applicable.

(i) Replace the PPC lever clamping bolt in accordance with the Accomplishment Instructions, section 2, of Mitsubishi MU-2 Service Bulletin No. 106/76-004, dated February 24, 2016, or Mitsubishi MU-2 Service Bulletin No. 244, dated December 25, 2015, as applicable to your model airplane.

(ii) For airplanes without a threaded hole in the splined end of the shouldered shaft of the PPC assembly, incorporate a threaded hole in accordance with the Accomplishment Instructions, paragraph 3.C.(3)(d)2, of Honeywell International Inc. Service Bulletin TPE331-72-2190, Revision 0, dated December 21, 2011.

(iii) Install a secondary retention feature in the threaded end of the PPC input shaft in accordance with the Accomplishment Instructions, section 2, of Mitsubishi MU-2 Service Recommendation No. 049/76-002, dated June 29, 2018, or Mitsubishi MU-2 Service Recommendation No. 080, dated June 29, 2018, as applicable to your model airplane.

(2) For Model MU-2B and MU-2B-10 airplanes: Within 100 hours TIS after the effective date of this AD or within 12 months after the effective date of this AD, whichever occurs first, replace the PPC lever clamping bolt and install a secondary retention feature in the threaded end of the PPC input shaft using a method approved by the Manager of the Fort Worth ACO Branch, FAA. The Manager's approval letter must specifically refer to this AD.

(h) Repetitive Inspections and Reporting

Within 100 hours TIS after replacing the bolt and installing a secondary retention feature as required by paragraph (g) of this AD and thereafter at intervals not to exceed 100 hours TIS, inspect the security of the PPC lever by pulling the PPC lever upward by hand to ensure it does not detach from the PPC input shaft. If the PPC lever detaches, do the following.

(1) Before further flight, install the PPC lever using a method approved by the Manager of the Fort Worth ACO Branch, FAA. The Manager's approval letter must specifically refer to this AD.

(2) Within 30 days after the PPC lever detachment or within 30 days after the effective date of this AD, whichever occurs later, report the results of the inspection, including airplane model and serial number, to the FAA representative identified in paragraph (l)(2) of this AD.

(i) Special Flight Permit

(1) Special flight permits may be issued for the purpose of operating the airplane to a location where the requirements of paragraph (g) of this AD can be performed with the following limitations: Flights must not carry passengers, must operate in daytime visual meteorological conditions only, and must not operate in areas of known turbulence.

(2) Special flight permits may be issued for the purpose of operating the airplane to a location where the requirements of paragraph (h) of this AD may be performed without limitations.

(j) Paperwork Reduction Act Burden Statement

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory as required by this AD; the nature and extent of confidentiality to be provided, if any. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Fort Worth ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the Fort Worth ACO Branch, send it to the attention of the person identified in paragraph (l)(2) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(l) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Japan Civil Aviation Bureau (JCAB) AD No. TCD-8678-2016, dated February 5, 2016, for

related information. This MCAI may be found in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0781.

(2) For more information about this AD, contact John Turner, Aviation Safety Engineer, Fort Worth ACO Branch, FAA, 10101 Hillwood Parkway, Fort Worth, Texas 76177; phone: (817) 222-4508; fax: (817) 222-5245; email: johh.r.turner@faa.gov.

(m) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Honeywell International Inc. Service Bulletin TPE331-72-2190, Revision 0, dated December 21, 2011.

(ii) Mitsubishi MU-2 Service Bulletin No. 244, dated December 25, 2015.

(iii) Mitsubishi MU-2 Service Bulletin No. 106/76-004, dated February 24, 2016.

(iv) Mitsubishi MU-2 Service Recommendation No. 049/76-002, dated June 29, 2018.

(v) Mitsubishi MU-2 Service Recommendation No. 080, dated June 29, 2018.

(3) For Mitsubishi service information identified in this AD, contact Mitsubishi Heavy Industries America, Inc., c/o Turbine Aircraft Services, Inc., 4550 Jimmy Doolittle Drive, Addison, Texas 75001; phone: (972) 248-3108, ext. 209; fax: (972) 248-3321; website: <https://mu-2aircraft.com>.

(4) For Honeywell service information identified in this AD, contact Honeywell International Inc., 111 S 34th Street, Phoenix, Arizona 85034-2802; phone: 855-808-6500; email: AeroTechSupport@honeywell.com; website: <https://aerospace.honeywell.com/en/services/maintenance-and-monitoring>.

(5) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

(6) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fedreg.legal@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on December 11, 2020.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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